



UNITED STATES PATENT AND TRADEMARK OFFICE

fw
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/507,538	09/13/2004	Holger Kunkat	AT02-0012 US	1391
24738	7590	06/22/2007	EXAMINER	
PHILIPS ELECTRONICS NORTH AMERICA CORPORATION INTELLECTUAL PROPERTY & STANDARDS 1109 MCKAY DRIVE, M/S-41SJ SAN JOSE, CA 95131			SYED, NABIL H	
ART UNIT		PAPER NUMBER		
2609				
MAIL DATE		DELIVERY MODE		
06/22/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/507,538	KUNKAT ET AL.	
	Examiner	Art Unit	
	Nabil H. Syed	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 30 March 2007.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-17 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 13 September 2004 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

1. The following is a final office action on merits. Amendments received on 3/30/07 have been entered. Claims 1-17 are pending.

Drawings

2. The drawings are objected to because conventional features illustrated in the drawing as rectangular boxes must be labeled. See 37 CFR 1.83(a). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Steeves (US 6,034,603).

Referring to claims 1 and 5, as shown in Fig. 1, Steeves teaches a system 100 comprising a plurality of readers 101-103 (i.e., communication station) and tags 151-155 (i.e., transponders). Reader 101, as shown in Fig. 6, comprises an integrated circuit formed by transmitter 603, receiver 602, controller 606, power regulation 605, reader network processor 601, memory 604, reader module 611, functional circuit 610, media access 609, and microcontroller 608. Per Steeves, readers 101-103 communicate with each other in addition to tags 151-155 (see Col. 2, lines 57-60; Col. 5, lines 49-51; and Col. 8, lines 1-2 and 30-40). As called for in claims 1 and 5, Steeves discloses reader

101 having (a) transmitter with processor 603 and receiver with processor 602 (i.e., first protocol executing means) that enables communication between reader 101 and a tag, a subset of tags, or any tag within range in accordance with a reader-tag protocol described in Col. 8, lines 1-28 and 41-46); and (b) a specific processor (i.e., a second protocol-executing means) that enables communication between reader 101 and another reader in accordance with a reader-to-reader protocol, such as a LonWorks® network protocol or powerline communication protocol (see Col. 2, lines 63-66 and Col. 8, lines 33-40 and 60-66). It is understood that readers 101-103 and computer 101 communicate with each other using the same network, as shown in Fig. 1.

5. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Strong et al. (US 2003/0007473).

Referring to claims 1, 5, 9 and 14, Strong teaches a system, as shown in Fig. 2, comprising a local positioning system (LPS), which includes a plurality of interrogators 6 (i.e., communication stations) coupled to a plurality of antennas 5 that communicate with each other and with tags 2 (i.e., transponders) (see Sections [0045]-[0046], and [0054]-[0055]). Per Strong, interrogator 6 communicates with tags 2 using spread-spectrum (i.e., an interrogator-tag protocol) (see Section [0096]); thus interrogator 6 must include a first protocol-executing means. Strong further teaches that interrogators 6 are directly connected to an Ethernet local area network (LAN) and communicate with each other over the LAN using the Ethernet protocol (i.e., an interrogator-interrogator protocol) (see Sections [0047] and [0054]-[0055]); thus interrogator 6 must also include a second protocol-executing means. Though not expressly taught, Strong's interrogator

6 must have an integrated circuit and comprising at least (1) a radio frequency (RF) transmitter and receiver (or an RF transceiver) and a microprocessor that form a first protocol-executing means in order to communicate with tags 2 via spread-spectrum and (2) an Ethernet interface (i.e., a second protocol-executing means) in order to communicate with other interrogators 6 via the LAN.

Regarding claims 2, 6, 12, 13, 16 and 17, Strong teaches that interrogator 6 generates a 2.4 GHz field (i.e., an energy-supply signal) to power tags 2 over the air each time the interrogation starts (i.e., the interrogator-tag protocol begins) (see Sections [0096]-[0097]). Strong also teaches that interrogators 6 communicate with each other over an Ethernet LAN (see Section [0047]). Though Strong fails to expressly teach that interrogator 6's second protocol-executing means having a synchronizing signal generating means generating a synchronizing signal each time the interrogator-interrogator protocol starts, a message or frame generated by interrogator 6 includes an eight-byte preamble that enables a receiving interrogator 6 to lock onto the transmitting interrogator 6's timing on a frame-by-frame basis; thus the preamble functions as a synchronization signal, and interrogator 6's second protocol-executing means must have a synchronizing signal generating means. Though not expressly taught, Strong's interrogator 6 must have an integrated circuit and comprising at least (1) a radio frequency (RF) transmitter and receiver (or an RF transceiver) and a microprocessor that form a first protocol-executing means in order to communicate with tags 2 via spread-spectrum and (2) an Ethernet interface (i.e., a second protocol-executing means) in order to communicate with other interrogators 6 via the LAN.

Regarding claims 3 and 7, because Ethernet devices only transmit when there is information to be transferred instead of transmitting continuously, as required by some network protocols, Strong's interrogators 6 conserve power by transmitting to other interrogators 6 only when necessary.

Regarding claims 4 and 8, Strong teaches that interrogator 6's first protocol-executing means handles a interrogator-tag protocol that communicates with a plurality of tags 2 (see Fig. 2 and Sections [0045] and [0055]-[0056]). In addition, Strong teaches that a master interrogator 6 sends a "turn on" command to a slave interrogator 6 seven milliseconds early (i.e., as early as possible) to compensate for a seven-millisecond delay between the master and slave interrogators 6 (see Section [0055]).

Regarding claims 11 and 15, Strong teaches that the LPS tags are considered RFID tags (see section [41], lines 19-20).

Response to Arguments

6. Applicant's arguments filed 3/30/07 have been fully considered but they are not persuasive. Applicant argument that, "there is no disclosure in the reference to Steeves, et al. of a reader communicating with a further reader." The Examiner respectfully disagree. Steeve clearly states that reader to reader communications are performed using a specific processor that enables communication between reader 101 and another reader (see col. 8, lines 30-40).

Applicant's argument "that the reference to Strong .et al fails to discloses differing protocols for the interrogators and the tags." The Examiner respectfully disagrees. Strong discloses that the interrogators are connected and communicating to

each other using a Ethernet LAN (see section [47]) which is a wired connection and interrogators communicate with the tags using a wireless RF connection [see section [45]) which is a different protocol than wired connection hence Strong uses the different protocol when interrogator is communicating with interrogator and when interrogator is communicating with tag.

Applicant further argues, "the reference fails to disclose any communications Protocols with specificity, and thus cannot disclose any difference between the interrogator-tag and interrogator-interrogator protocol." The Examiner respectfully disagrees. Strong discloses that the interrogators are connected and communicating to each other using a Ethernet LAN (see section [47]) which is a wired connection and interrogators communicate with the tags using a wireless RF connection [see section [45]) which is a different protocol than wired connection hence Strong uses the different protocol when interrogator is communicating with interrogator and when interrogator is communicating with tag.

Applicant further argues, "While it is true that the reference discloses that the interrogators may be plug-in Ethernet LAN devices, there is no disclosure that the interrogator-tag is otherwise." The Examiner respectfully disagrees. Strong discloses that the interrogators communicate with the tags over radio frequency bands (see section [45]).

Applicant further argues, "the reference fails to describe a single protocol for LPS communications, let alone different protocol as claimed." The Examiner respectfully disagrees. Strong discloses that the interrogators are connected and communicating to

each other using a Ethernet LAN (see section [47]) which is a wired connection and interrogators communicate with the tags using a wireless RF connection [see section [45]) which is a different protocol than wired connection hence Strong uses the different protocol when interrogator is communicating with interrogator and when interrogator is communicating with tag.

Applicant further argues, “there is no basis provided in the Office Action for the assertion by the Examiner that the protocols of Strong, et al. must be of one type or another or that the protocols must be different.” The Examiner respectfully disagrees. Applicants are reminded that during examination, claims are given their “broadest reasonable interpretation . . .” *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).¹ Therefore, under the broadest reasonable interpretation standard, the Examiner maintains his interpretations. Strong discloses that the interrogators are connected and communicating to each other using a Ethernet LAN (see section [47]) which is a wired connection and interrogators communicate with the tags using a wireless RF connection [see section [45]) which is a different protocol than wired connection hence Strong uses the different protocol when interrogator is communicating with interrogator and when interrogator is communicating with tag.

Applicant argues that, “the reference fails to describe a single protocol for LPS communication, let alone different protocols as claimed.” The Examiner respectfully disagrees. The Examiner respectfully disagrees. Strong discloses that the interrogators

¹ ¹⁹ See also MPEP §2111; *In re Graves*, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701

are connected and communicating to each other using a Ethernet LAN (see section [47]) which is a wired connection and interrogators communicate with the tags using a wireless RF connection [see section [45]] which is a different protocol than wired connection hence Strong uses the different protocol when interrogator is communicating with interrogator and when interrogator is communicating with tag.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil H. Syed whose telephone number is 571-270-3028. The examiner can normally be reached on M-F 7:30-5:00 alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynda Jasmin can be reached on (571) 270-3033. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lana L
6-01-07
LANA LE
PRIMARY EXAMINER

Nabil H Syed
Examiner
Art Unit 2609

N.S